



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,938	10/21/2003	Hong Li	Q77917	3199

23373 7590 02/09/2005
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

SALDANO, LISA M

ART UNIT	PAPER NUMBER
----------	--------------

3673

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



Office Action Summary

Application No.

10/688,938

Applicant(s)

LI, HONG

Examiner

Lisa M. Saldano

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duvall et al (5,962,809) in view of Thal (DE-29503619-U1) and Bennett et al (5,106,422).

Duvall et al disclose an apparatus and method for protecting underground cables comprising a protective inverted U-Section channel member 20 that covers cable assembly 12 (see column 3, lines 20-40). Duvall et al disclose that the channel member is made from impact resistant thermoplastic polymers (see column 4, lines 47-59). In the method, Duvall et al disclose that a plurality of channel members are installed in the trench so that the cable assemblies are housed within the confines of the enclosure department defined by the channel member. Duvall et al illustrate interconnecting channel members thereby covering the full length of the cable (see Figs.1&2).

Duvall et al further disclose that the trenches are typically backfilled (see column 1, lines 37-43).

However, Duvall et al fail to disclose that the invention also comprises sidewall projections and a filling compound poured into the groove of a trench for sealing.

Art Unit: 3673

Thal discloses an inverted U-section channel member 3 for protecting a conduit or cable 2 in a trench. The sidewalls of the channel member contain projections (see Fig.1)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Duvall et al to comprise projections for retaining the channel member in a trench, as taught by Thal. Both the invention of Duvall et al and Thal are functional equivalents in that they protect cable or conduits buried in a trench. The projections taught by Thal enhance the inventions by maintaining the channel member in the trench through friction caused by the projections making the channel members more stable.

Bennett et al disclose a rapid-setting flowable backfill composition that may be used in any backfill situation by electric, gas, telephone, water and sewer utilities (see column 9, lines 9-25).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Duvall et al to comprise a filling compound that is poured, as taught by Bennett et al because as previously stated, Duvall et al provide motivation for backfilling a trench. Bennett merely provides more detail regarding the options one has to backfill a utility trench that typically contains conduits or cables.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duvall et al in view of Thal and Bennett et al, as applied to claim 5 above, and further in view of Spiridonov (4,166,710).

Duvall et al, Thal and Bennett et al disclose the inventions described above.

However, Duvall et al, Thal and Bennett et al fail to disclose projections sticking out to the inside as claimed by the application.

Spiridonov discloses a device 2 installed over a pipeline for securing the conduit or pipeline 1 in a groove. The device 2 has the form of a three-walled casing with a top and two sidewalls (see Fig.1). Spiridonov discloses contact shoes 7,8 constitute at least two projections sticking out toward the inside space created by each sidewall.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Duvall et al to comprise projections that stick out into the insides of the channel member, as taught by Spiridonov, because the inward projections are another means of retaining the cable or conduit inside the channel members at a desired location.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duvall et al in view of Thal and Bennett et al, as applied to claim 5 above, and further in view of Bonnet (FR-2306051-A).

Duvall et al, Thal and Bennett et al disclose the inventions described above.

However, Duvall et al, Thal and Bennett et al fail to disclose projections sticking outside and upward from each of the sidewalls.

Bonnet discloses an inverted U-Section spring clip 1 or casing mounted over an electric cable 3 that resist clip retraction from the cable mounting block groove 2. The spring clip is capable of being placed into a groove formed into solid ground. The clip has the form of a three-walled casing with a top 1 and two sidewalls 4 (see Figs 1-9). Bonnet discloses that the clip has

Art Unit: 3673

at least two projections 5 sticking outside and upward from each of the sidewalls 4 (see Figs. 3 and 9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Duvall et al to comprise disclose projections sticking outside and upward from each of the sidewalls, as taught by Bonnet, because because the outside and upward projections are another means of retaining the cable or conduit inside the channel members at a desired location.

Response to Arguments

5. Applicant's arguments with respect to claims 2-6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 3673


will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lms



HEATHER SHACKELFORD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600